

**DETAILED ACTION**

THIS FINAL ACTION IS RESPONSIVE TO THE AMENDMENT FILED 3/3/2010.

- Claims 2, 6, and 15-23 were canceled.
- Claims 1, 3, 5, 7, 11 were amended.
- Claims 9-10 and 12 are withdrawn.
- Claims 1, 3-5, and 7-14 are pending.

***Claim Rejections - 35 USC § 102***

[1] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[2] Claims 1, 5, 7-8, and 11 are rejected under 35 U.S.C. 102(b) as anticipated by Becker, US-2,632,355, because the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country more than one (1) year prior to the application for patent in the United States.

As for Claim 1, Becker discloses of a fastening structure in which a first member (10) and a second member (18) are mutually connected by a fastening member including a threaded portion (20), wherein

the first member (10) is formed with a tubular projecting portion (10) which raises from one surface of the first member toward the second member and inwardly defines a hollow portion,

the second member (18) is formed with a hole in which the tubular projecting portion (10) is inserted,

the threaded portion (20) of the fastening member includes an outer diameter larger than a minimum inside diameter of the hollow portion of the tubular projecting portion (10) and smaller than a hole diameter of the second member (18),

the threaded portion (20) is screwed into the hollow portion of the tubular projecting portion (10) inserted into the hole of the second member (18),

the tubular projecting portion (10) is formed with a radially expanded portion by expanding the tubular projecting portion radially and outwardly by screwing the threaded portion, and

the first member (10) and the second member (18) are mutually fastened in a state where an outer circumference surface of the radially expanded portion abuts on a peripheral wall of the hole of the second member (18).

wherein the hollow portion defined by the tubular projecting portion (10) is a hollow portion whose both ends are open, penetrating the first member in its through-thickness direction.

wherein a base end portion of the tubular projecting portion (10) of the first member is formed with a recess portion for controlling increase of torque required for screwing the fastening member (10).

Re: Claim 5, wherein the radially expanded portion of the first member (10) is pressed onto the peripheral wall of the hole of the second member (18) without remaining a space between the radially expanded portion and the peripheral wall of the hole of the second member (18).

Re: Claim 7, wherein the recess portion is defined by a radially increased portion of an inside diameter of the tubular projecting portion (see 10 in fig. 3).

Re: Claim 8, wherein the radially increased portion includes a uniform bore diameter in an axis line direction of the tubular projecting portion (10).

Re: Claim 11, wherein the fastening member includes a flange portion at one end of the threaded portion (20), the threaded portion (20) is screwed into the tubular projecting portion (10) from a leading end of the tubular projecting portion (10) such that the flange portion is located in an other surface side of the second member (18) located in an opposite side of one surface of the second member (18) facing to the one surface of the first member (10), and the second member (18) is whereby sandwiched between the flange portion of the fastening member and the one surface of the first member.

[3] Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as anticipated by Brush, US-2,448,351, because the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country more than one (1) year prior to the application for patent in the United States.

As for Claim 1, Brush discloses of a fastening structure in which a first member (7) and a second member (21) are mutually connected by a fastening member (19) including a threaded portion, wherein

the first member (7) is formed with a tubular projecting portion (14) which raises from one surface of the first member toward the second member and inwardly defines a hollow portion,

the second member (21) is formed with a hole in which the tubular projecting portion (14) is inserted,

the threaded portion of the fastening member (19) includes an outer diameter larger than a minimum inside diameter of the hollow portion of the tubular projecting portion (14) and smaller than a hole diameter of the second member (21),

the threaded portion is screwed into the hollow portion of the tubular projecting portion (14) inserted into the hole of the second member (21),

the tubular projecting portion (7) is formed with a radially expanded portion by expanding the tubular projecting portion radially and outwardly by screwing the threaded portion, and

the first member (7) and the second member (21) are mutually fastened in a state where an outer circumference surface of the radially expanded portion abuts on a peripheral wall of the hole of the second member (21).

wherein the hollow portion defined by the tubular projecting portion (7) is a hollow portion whose both ends are open, penetrating the first member in its through-thickness direction.

Re: Claim 3, wherein at least one slit (16) is formed from a leading end of the tubular projecting portion toward a base end (10) thereof.

Re: Claim 4, wherein the slit extends from the base end (10) of the tubular projecting portion to the one surface of the first member (7).

Re: Claim 5, wherein the radially expanded portion of the first member (7) is pressed onto the peripheral wall of the hole of the second member (21) without remaining a space between the radially expanded portion and the peripheral wall of the hole of the second member (21).

***Allowable Subject Matter***

[4] Claims 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

[5] Applicant's arguments and amendments filed 3/3/2010 regarding rejections under 35 U.S.C. 102 have been fully considered but they are not persuasive. Specifically, the applicant argues that Becker does not disclose that the tubular projecting portion expands radially outwardly by screwing the threaded portion. The examiner disagrees and maintains that when the screw 20 of Becker is screwed into the nut, the tubular projecting portion 10 will indeed expand radially outward. Next, the applicant argues that the outer circumference wall of the tubular projection portion is pushed onto the peripheral wall of the hole by the radially expanded tubular projection portion. This exact limitation however is not claimed, rather, the claim reads that the outer circumference surface of the radially expanded portion abuts on a peripheral wall

of the hole of the second member. The examiner also maintains that Becker discloses of the outer surface of the portion abutting a peripheral wall of the hole of the second member. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064.

With regard to the prior art of Brush, the applicant argues that Brush fails to disclose a base end portion of the taper that is formed with a recessed portion for controlling an increase of torque required for screwing the fastening member. This limitation was never stated as being met by Brush however. Rather, this limitation was originally claim 6; Brush was only applied to claims 1-5.

With regard to the prior art of JP 51-163366, due to the amendment to the claims, JP 51-163366 is not longer applicable.

***Conclusion***

**[6] THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**[7]** Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached at (571) 272-6987. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DAVID REESE/  
Examiner, Art Unit 3677

/Victor Batson/  
Supervisory Patent Examiner, Art Unit 3677